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前沿资讯

1．Guest Post: 5 Ways Agriculture Could Use Open Data to Change the World（农业利用开放数据改变世界的五个方法）

简介：农业与世界上许多最紧迫的社会问题有着内在联系，从气候变化和低收入食品券计划，到更大范围的贫困和可持续化。根据“哈佛商业评论”的报道，一个优于其他工具的工具可以帮助我们真正发挥作用。 “如果要扩大我们解决社会问题的任何努力，我们必须更好地利用人类有史以来最快的衡量工具：开放数据。”

来源：全球农业与营养开放数据网（GODAN）

发布日期:2018-12-31

全文链接:https://www.godan.info/blog-posts/guest-post-5-ways-agriculture-could-use-open-data-change-world

2．World Bank launches global analysis of climate-smart agriculture in 33 countries（世界银行在33个国家启动了气候智能型农业的全球分析）

简介：A report launched by the International Center for Tropical Agriculture and the World Bank at COP24 analyses efforts to transform farming with climate-smart agriculture in 33 countries to guide future investment and build resilience for the world’s 500 million smallholder farmers vulnerable to climate change. The report is the most comprehensive analysis of CSA to date, listing the top 10 insights into its implementation that scientists have gathered from countries in Africa, Asia and Latin America during five years of research.

来源：国际农业研究磋商组织（CGIAR）

发布日期:2018-12-05

全文链接:https://ccafs.cgiar.org/news/media-centre/press-releases/world-bank-launches-global-analysis-climate-smart-agriculture-33#.XCyEmclyRhF

学术文献

1．Transition towards sustainability in agriculture and food systems: Role of information and communication technologies（农业和粮食系统向着可持续化过渡：信息与通信技术的作用）

简介：Food sustainability transitions refer to transformation processes necessary to move towards sustainable food systems. Digitization is one of the most important ongoing transformation processes in global agriculture and food chains. The review paper explores the contribution of information and communication technologies (ICTs) to transition towards sustainability along the food chain (production, processing, distribution, consumption). A particular attention is devoted to precision agriculture as a food production model that integrates many ICTs. ICTs can contribute to agro-food sustainability transition by increasing resource productivity, reducing inefficiencies, decreasing management costs,

and improving food chain coordination. The paper also explores some drawbacks of ICTs as well as the factors limiting their uptake in agriculture.

来源： Information Processing in Agriculture

发布日期: 2018-12

全文链接: http://agri.ckcest.cn/file1/M00/06/5B/CsgkOFwshI6AH2koAAUFs_7ucWQ270.pdf

2．A Creative IoT agriculture platform for cloud fog computing（基于“云雾计算”的创新农业物联网平台）

简介： The innovative service process is a process that uses newly developed technologies to improve the current service models. The study proposes a creative service process based on the cloud computing platform of the Internet of Things and it can be used to improve the integration of the current cloud-to-physical networking and to improve the computing speed of the Internet of Things. In the past, most of the computing technologies focused on high-speed computing in cloud computing or remote operations of a single object. If a service requires cloud or fog resources that can make device use of high-speed computing in the cloud and a single point of operation integration on the object side, it will be able to quickly increase in the process of collaboration, the required data will be moved back and forth between Cloud and Fog, speeding up the cloud computing integration schedule. This research uses innovative platform technology to be applied to the cloud agriculture platform. Through cloud integration, it can be applied to large-area data collection and analysis, allowing farmland with limited network information resources to be integrated and automated, including agricultural monitoring automation, pest management image analysis and monitoring, which can be used to solve the predicament of large-area automation construction.

来源： Sustainable Computing: Informatics and Systems

发布日期: 2018-11

全文链接: http://agri.ckcest.cn/file1/M00/06/5B/CsgkOFwshPWALj8PADJYEpCpHp8437.pdf

3．Integration and Analysis of Agricultural Market Information Based on Web Mining（基于Web挖掘的农业市场信息集成与分析）

简介： Agricultural big data can be used to guide agricultural production, forecast agricultural market demands, and support agricultural decisions. How to effectively extract and use the information on the Internet, which contains a large amount of agricultural information, has become a huge challenge. This paper proposes three kinds of automatic data acquisition strategies based on (focused, incremental, custom) Web crawler technologies, which are better suited to different types of agricultural websites than traditional Web crawlers. In addition to solving asynchronous processing, dynamic page rendering, distribution, and data-persistent problems encountered during data acquisition, this paper also proposes to combine the Aho-Corasick algorithm to improve the text matching efficiency. Finally, the acquired agricultural market data was visually analyzed by using key technologies of Web

mining. This study takes Chinese agricultural official websites, agricultural products wholesale market websites, and e-commerce websites as examples to integrate, process, visualize, and analyze the data acquired by using the three automatic data acquisition strategies proposed in this paper.

来源： IFAC-PapersOnLine
发布日期: 2018-09